

II. Remarks

Reconsideration and re-examination of this application in view of the above amendments and the following remarks is herein respectfully requested.

After entering this Amendment, claims 1-23 remain pending.

Rejection under 35 U.S.C. § 102

Claim 1-10, 12-13, 15-17, 19-20 and 22-23 were rejected under 35 U.S.C. § 102(b) as being anticipated by JP7246908A or JP3105391B2 to Hosoya et al. (Hosoya).

Claim 1 recites the detection system is cooperatively configured with a pedestrian protection arrangement to activate the pedestrian protection arrangement in response to the first sensor arrangement detecting at least one of a distance below a threshold distance and a speed above a threshold speed, wherein the pedestrian protection arrangement has at least two modes of activation.

MPEP §2131 provides, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." *Verdegaal Bros. C. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The examiner contends that the first sensor is taught by element 37 and 38 of Hosoya. However, in the translated text provided by the examiner paragraphs [0023] and [0026-0031] only discusses that sensors 37 and 38 detect the existence of a tall person. Hosoya does not at all discuss that sensors 37 and 38 detect that a distance is

below a threshold distance or that a speed is below a threshold speed, it only teaches identifying the height of a person in front of the vehicle. While it is understood that a speed sensor 39 is taught, under the examiner's reasoning sensor 39 corresponds to the third sensor in claim 23. Accordingly, the reasoning put forth by the examiner for the rejection of claim 1 is improper and should be withdrawn.

Further, there is no need for the first adult sensor to make any judgements as to the relative speed of the detected object, or the distance to the object since in an accident situation the first adult sensor detects a pedestrian being struck by the front bumper of the vehicle, then these quantities are already known. The relative speed is simply the speed detected by the speed sensor (39, provided in the vicinity of one of the front wheels), the pedestrian being assumed to be effectively stationary, and the distance is known because the front bumper of the vehicle is in contact with the pedestrian in Hosoya. Therefore, there is no need for the first adult sensor to measure these parameters.

By contrast, as described on pages 9 and 10 of the present application, the fact that the sensor of the present application can measure speed and/or distance allows the movement of the pedestrian to be tracked in the moments after the initial impact, and the mode of deployment of the pedestrian protection arrangement to be modified in dependence on this information. This would not be possible with the system of Hoyosa, and accordingly the instant claims are inventive over Hoyosa.

In addition, Claim 1 includes the feature of ...*a first sensor arrangement located more than 0.5 metres behind the front of the vehicle...* With reference to figure 7 of Hoyosa, it can be seen that the system has one sensor (37) located at the top of the windscreen, emitting a sensing beam generally horizontally forward, and a further

sensor (38) located at the very front of the hood, emitting a sensing beam forwards and upwards. Using this combination of sensors, the system can distinguish (in certain circumstances) between an adult pedestrian and a child pedestrian. Returning to the examiner's analysis in paragraph 2 of the office action, the examiner notes as follows: *a first sensor arrangement (37,38) located more than 0.5 metres behind the front of the vehicle (sensor 37)...* The examiner then goes on to refer to the first sensor arrangement as including the sensor 38 in the analyses of the claims. However if the "sensor arrangement" of Hoyosa includes both of the sensors 37 and 38, then the "sensor arrangement" as a whole cannot be considered to satisfy the requirements of the claim, since it is not more than 0.5 metres behind the front of the vehicle. Claim 1 is also patentable for this reason as well.

Claims 2-10, 12-13, 15-17, 19-20 and 22-23 depend from claim 1 and are, therefore, patentable for at least the same reasons as given above in support of claim 1.

Claim 20 recites that the pedestrian protection arrangement incorporates a first lifter to lift a front part of the hood, and a second lifter to lift a rear part of the hood, one mode of activation of the at least two modes of activation being the lifting of the front part of the hood, and another mode of activation of the at least two modes of activation including additionally the lifting of a rear part of the hood. The examiner refers to the air bags 33a and 33b. However, the airbags as taught in paragraph [0014] are inflated through openings in the hood. Nothing is mentioned about lifting either the front part of the hood or the rear part of the hood.

Claim 16 recites that the second sensor arrangement is a sensor that can discriminate objects lighter than a pedestrian. Nothing in any of the references even

hints at discriminating the weight of an object. As such, claim 16 is clearly patentable for these reasons as well.

In addition, the examiner notes that with regard to claims 2-10, 13, 15, and 16 that the examiner merely asserts obviousness by stating that specific embodiment of sensor is design choice. However, as noted above a rejection on 35 U.S.C. § 102(b) requires that each and every element is taught in a single prior art reference. As such, the rejection of claims 2-10, 13, 15, and 16 is also improper and should be withdrawn.

Further even under an obviousness rejection according to 35 U.S.C. § 103, the examiner may not make a mere assertion without sufficient factual evidence and reasoning. Factual findings made by the Examiner (*i.e.*, scope and content of the prior art, differences between the claimed invention and the prior art, and level of ordinary skill in the pertinent art) and articulated reasoning are necessary underpinnings to establish obviousness and must be made explicit. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007); Examination Guidelines for Determining Obviousness, 72 Fed. Reg. 57,526, 57,528 (Oct. 10, 2007); 35 U.S.C. § 132. A mere conclusory statement cannot support the legal conclusion of obviousness. 127 S. Ct. at 1741. Rather, the Examiner must identify how a person of ordinary skill in the art would, by known methods, combine the elements in the way the claimed invention does. *Id.*; 72 Fed. Reg. 57,526, 57,528 (Oct. 10, 2007).

Rejection under 35 U.S.C. § 103

Claim 14 is was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hosoya in view of U.S. Patent No. 5,183,288 to Inada et al. (Inada).

Claim 14 depends on claim 1. Inada does not teach the elements noted above as missing from Hosoya. As such, claim 14 is patentable for at least the same reasons as given above in support of claim 1.

Claim 21 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hosoya in view of U.S. Publication No. 2002/0014761 by Miyasaka et al. (Miyasaka).

Claim 21 depends on claim 1. Inada does not teach the elements noted above as missing from Hosoya. As such, claim 21 is patentable for at least the same reasons as given above in support of claim 1.

In addition, claim 21 recites that the pedestrian protection arrangement includes a mechanism to lift the rear part of the hood, and at least one air-bag to cover part of the windshield or a portion of an A-Pillar provided on the vehicle, one mode of activation of the at least two modes of activation comprising the lifting of only the rear part of the hood, and another mode of activation of the at least two modes of activation including additionally the activation of at least one of the air-bags. However, Miyasaka only teaches one mode of activation where the rear part of the hood is raised together with activation of the air bags. Miyasaka does not teach a mode of operation that include lifting the rear part of the hood without the deployment of the airbag. Accordingly, claim 21 is patentable for at least these reasons as well.

Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is requested.

Respectfully submitted,

Dated: November 15, 2010

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